UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,790	04/18/2001	Petr Peterka	GIC-558	4617

20028 7590 03/14/2005

Lipsitz & McAllister, LLC
755 MAIN STREET
MONROE, CT 06468

EXAMINER	
FISH, JAMIESON W	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/807,790	PETERKA ET AL.	
	Examiner	Art Unit	
	Jamieson W. Fish	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The information disclosure statement (IDS) submitted on 9 July 2001 has been considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1-19** and **21** are rejected under 35 U.S.C. 102(e) as being anticipated by Nandikonda et al. (US 6,314,111).

4. Regarding claim **1**, Nandikonda teaches a television set-top terminal (See Fig. 2 STB 19a and Col. 7 lines 17-28), comprising: a computer readable medium having computer program code means (See Fig. 9b Hardware Col. 13 lines 39-58 The STB has software); and means for executing said computer program code means to implement an Application Programming Interface (API) (See Fig. 9b Open API Col. 7 lines 60-67, Col. 8 lines 1-7, and Col. 13 lines 39-58), wherein: the API is adapted to abstract system information (SI) in a digital television transport stream that is received by the terminal in any one of a plurality of different formats (See Fig. 2a, Fig. 5, Fig. 9 Col. 6 lines 66-67, Col. 7 lines 1-67, Col. 8 lines 1-7 Col. 10 lines 44-67, Col. 11 lines 1-65); and the API provides the abstracted SI in a generic format that is suitable for use by an

application at the terminal regardless of the specific format in which the SI is provided (See Fig. 2a Col. 9 lines 40-45, Col. 10 lines 44-67 Col. 11 lines 1-65. Service information for each digital data stream is stored to STB in the form of a service description table. The STB searches the service information for a desired service and converts the service information into a second form to retrieve the desired service).

5. Regarding claim **2,** Nandikonda teaches wherein: the API provides a navigation function to allow the terminal to navigate among television channels in the transport stream in accordance with the abstracted SI (See Col. 3 lines 27-40, Col. 6 lines 30-35, Col. 7 lines 65-67, Col. 8 lines 1-7 An API is used to provide an interactive application access to information. The listing of programs for selection of programs is a navigation function).

6. Regarding claim **3,** Nandikonda teaches wherein: the API provides a program guide function for implementing an electronic program guide for television channels in the transport stream in accordance with the abstracted SI (See Col. 3 lines 27-40 Col. 6 lines 30-35, Col. 7 lines 65-67, Col. 8 lines 1-7 An API is used to provide an interactive application access to information. The listing of programs for selection of programs is an electronic program guide function).

7. Regarding claim **4,** Nandikonda teaches wherein: the API provides a selection function for selection of specific television channels of the transport stream in accordance with the abstracted SI (See Col. 3 lines 27-40 Col. 6 lines 30-35, Col. 7 lines 65-67, Col. 8 lines 1-7 An API is used to provide an interactive application access

to information. The listing of programs for selection of programs is a selection function).

8. Regarding claim **5,** Nandikonda teaches wherein: the API provides a descriptor retrieval function for recovering descriptors of the SI in accordance with the abstracted SI (See Col. 2 lines 48-66, Col. 7 lines 60-67, Col. 8 lines 1-7, An API is used to provide interactive applications access to information. Making a list of the identifications of programs is a descriptor retrieval function).

9. Regarding claim **6**, Nandikonda teaches wherein: the API provides a utility function containing supporting objects, including events and exceptions, for supporting synchronous delivery of the SI to the application (See Col. 3 lines 7-40, Col. 7 lines 60-67, Col. 8 lines 1-7, Col. 11 lines 53-65. An API is used to provide interactive applications access to information. The API is responsive to physical changes in transmission network and thus supports synchronous delivery of the SI to the application).

10. Regarding claim **7,** Nandikonda teaches wherein: the API provides a data function for implementing a guide to data services in the transport stream in accordance with the abstracted SI (Col. 6 lines 30-35, Col. 7 lines 65-67, Col. 8 lines 1-7, Col. 10 lines 1-12 The API provides SI to implement a web browser. A web browser is a guide to data services).

11. Regarding claim **8**, Nandikonda teaches wherein: the API provides a pipeline function for providing information regarding a physical delivery mechanism of the transport stream in accordance with the abstracted SI (See Col. 3 lines 7-67, Col. 7

lines 60-67, Col. 8 lines 1-7, Table 2, and Table 3 An API is used to provide interactive applications access to information. This information includes physical parameters of transmission channels. This is a pipeline function).

12. Regarding claim **9,** the USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements. Nandikonda teaches wherein: the plurality of available SI formats include at least one of: Motion Picture Experts Group (MPEG) Program Specific Information (PSI); Digital Video Broadcasting (DVB) System Information (SI) (See Col. 10 lines 13-16); Advanced Television Systems Committee (ATSC) Program and System Information Protocol (PSIP); Cable SI Digital Video Standard 234 of the Society of Cable and Television Engineers; and private SI.

13. Regarding claim **10,** Nandikonda teaches further comprising: a memory for storing the service information as the transport stream is received at the terminal (See Col. 11 lines 53-65 Service information in the form of SDT is stored to SBT memory); wherein: the API provides a retrieve function call for enabling a calling application at the terminal to retrieve the service information such that SI that is available in the memory is returned essentially immediately as a direct return value, and, if the service information is not available in the memory, said retrieve function call returns an exception signaling to the calling application that the SI is to be delivered to the calling application asynchronously (See Col. 7 lines 60-67, Col. 8 lines 1-7, Col. 11 lines 4-67, Col. 12 lines 1-7. An API is used to provide interactive applications access to information. The API searches the SDT tables stored in memory. If information is not found in memory,

the API connects to the server to get the information and then begins application. This process is returning an exception and calling application asynchronously).

14. Regarding claim **11,** Nandikonda teaches wherein: the API provides a utility function containing supporting objects, including events and exceptions, for supporting the asynchronous delivery of the SI to the calling application (See Col. 3 lines 7-40, Col. 7 lines 60-67, Col. 8 lines 1-7, Col. 11 lines 53-65. An API is used to provide interactive applications access to information. The API is responsive to physical changes in transmission network and thus supports synchronous delivery of the SI to the application).

15. Regarding claim **12,** Nandikonda teaches wherein: the transport stream is provided in one of a plurality of available transport stream formats (See Col. 7 lines 60-67, Col. 8 lines 1-7, and Col. 13 lines 39-58); and the API abstracts the SI to provide it in a generic format that is suitable for use by the application regardless of the specific transport stream format in which the SI is provided (See Fig. 2a Col. 9 lines 40-45, Col. 10 lines 44-67 Col. 11 lines 1-65. Service information for each digital data stream is stored to STB in the form of service description table. The STB searches the service information for a desired service and converts the service information into a second form and provides the application with the second form of information).

16. Regarding claim **13,** Nandikonda teaches wherein: the API provides a base package having information that is generic to the available transport stream formats (See Col. 10 lines 44-67 Col. 11 lines 1-65. The API provides information in generic form); and the API is adapted for use with a separate package having information that is

specific to the format of the transport stream that is received by the terminal (See Col. 10 lines 13-44 API is adapted for use with a default transport stream).

17. Regarding claim **14,** Nandikonda teaches wherein: the API provides incremental retrieval of the service information by allowing a calling application at the terminal to obtain a subset of the SI that is available at the terminal, perform an analysis of the obtained SI, and retrieve additional SI if required based on the analysis (See Col. 11 lines 66-67, Col. 12 lines 1-7 API searches stored information and if information cannot be found the additional SI is retrieved from server).

18. Regarding claim **15,** Nandikonda teaches wherein: the additional SI is retrieved from the subset of the SI that is available at the terminal in a memory of the terminal (See Col. 11 lines 66-67, Col. 12 lines 1-7 API searches stored information and if information cannot be found the additional SI is retrieved from server).

19. Regarding claim **16,** Nandikonda teaches wherein: the additional SI is retrieved from the transport stream (See Col. 11 lines 9-37, 66-67, Col. 12 lines 1-7. Transmission connection is established with the same transmission stream).

20. Regarding claim **17**, Nandikonda teaches wherein: the API enables a calling application at the terminal to recover a subset of the SI in the transport stream while rejecting other SI in the transport stream that is not required by the calling application (See Col. 11 lines 21-65. A search is made for information pertaining to a specific service and information needed to access the specific service is returned).

21. Regarding claim **18**, Nandikonda teaches wherein: the API provides a filtering function that is responsive to the abstracted SI to allow the application to specify at least

one service in the transport stream in which the application is interested (See Col. 11 lines 53-65. A search is made for a service of interest; when the service is found, abstracted information is provided to enable service. This is a filtering function).

22. Regarding claim **19**, the USPTO considers the applicant's "at least one of" language to be anticipated by any reference containing any of the subsequent corresponding elements. Nandikonda teaches wherein: the filtering function is adapted to filter services in the transport stream based whether the services are associated with at least one of: a transport stream, when services from multiple transport streams are available; a network; a bouquet; a satellite; a satellite transponder; a service name (See Col. 11 lines 59-65); a service/channel number; a favorite channel; and a theme.

23. Regarding claim **21**, claim **21** is a method claim corresponding to the apparatus of claim 1. Therefore, claim **21** is analyzed in accordance with claim 1.

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

25. Claim **20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nandikonda in view of Evain.

26. Regarding claim **20**, Nandikonda teaches wherein: the API is implemented for abstracting the SI (See Col. 7 lines 60-67, Col. 8 lines 1-7). Nandikonda fails to

disclose where the API is implemented using a plurality of different packages and different applications at the terminal include only specific ones of the packages according to specific portions of the abstracted SI that each application requires. However, having an API that is implemented using a plurality of different packages with different applications including specific packages is well known in the art as taught by Evain (See Fig. 3, Fig. 5, and Page 4 Applications. Applications in this STB are functions that require different application specific software resources (APIs/packages)). In light of the teaching from Evain, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nandikonda's API as claimed in claim 20 in order to make an API that is flexible and easily extendible (See Evain Page 6 Evolution).

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamieson W. Fish whose telephone number is 571-272-7307. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JF
03/07/2005

NGOC-YEN VU
PRIMARY EXAMINER